

Completed Return-On-Investment Project Case Study



United States Department of Energy
Office of Environmental Management
Fact Sheet

Super Sleever Savannah River Site, South Carolina

Original Problem

SRS uses over 1.7 million feet of air hose per year in various operations requiring air-supplied suits and hoods for personnel protection. Most applications are one time use due to the inability to easily radiologically release the hose from the contaminated area for reuse. The hoses were disposed as LLW.

The ROI Project Solution

A SRS operator engineered a portable device that manually dispenses a plastic protective sheath, or sleeve, over long and comparatively narrow objects in less than a tenth of the time it takes to do the same work without the device. This device was marketed and licensed for manufacture to a commercial nuclear service company for deployment.

Value Of Improvement

Site wide application would be to cover plastic suit and hood hoses, flush water hoses, and extension cords taken into Contamination Areas (CAs) and Airborne Radioactivity Areas (ARAs). Deployment of this device started in January 2000. When fully implemented, it should avoid 17,000 cubic feet of low level waste. Additional applications are being developed during field deployment.

Lifecycle Waste Reduction

Life Cycle Waste Reduction	2,400 m3
Operation Commencement Date	1/00
Project Useful Life (Years)	5



DOE Monetary Benefits

Cost	\$91,700
Lifecycle Savings	\$13,144,000
Return on Investment	2,850%

Benefits At-A-Glance

- Technology licensed to a vendor which has already used at six commercial nuclear sites
- Avoids 480 m3 of LLW annually from reuse of hoses, cables, and cords.
- Many new applications being recognized during field deployment.

Building Upon an Office of Science and Technology Demonstration Success

Super Sleever

Savannah River Site, South Carolina

Summary Data

ROI Priority Area:	Waste Generation
ROI Project Type:	Source Reduction
Project Cost:	\$91,661
Lifecycle Savings:	\$13,143,644
Implementing Group:	EM, SRS
Benefiting Group:	EM, SRS
Useful Life Years:	5
Return On Investment:	2,850 %
Lifecycle Waste Reduction:	2,400 m3
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